

Serial No. 10/613,057
Attorney Docket No. BFGRP0304US

Reply to Office Action Dated May 12, 2004
And Petition For A One-Month Extension Of Time
Reply Dated September 13, 2004

REMARKS

Following entry of the above amendment, claims 1-20 will be pending. Claims 1, 17 and 20 have been amended to clarify the features. Specifically, the term "during normal braking" has been inserted in each of the claims. Additionally, claims 1, 17 and 20 have been amended to recite the features provide improved brake response during normal braking.

I. REJECTION OF CLAIMS UNDER 35 U.S.C. § 102

Claim 20 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Burgess, U.S. Patent No. 5,381,337 ("Burgess"). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Burgess discloses a brake control system for preventing the skidding of a wheel on a surface. See, for example, the Abstract, Figs. 2 and 3. Burgess does not disclose adjusting during normal braking a brake pressure output command provided to a brake actuator using a torque feedback control based on a measured amount of brake torque.

Claim 20 as amended includes, *inter alia*, the feature "adjusting **during normal braking** the brake pressure output command provided to the brake actuator using the torque feedback control based on the measured amount of brake torque, the adjusting step including a step of limiting a degree of the torque feedback control based on the amount of brake torque applied to the wheel to **provide improved brake response during normal braking.**" (emphasis added) The adjusting **during normal braking** of provided to a brake actuator using a torque feedback control based on a measured amount of brake torque improves brake response during normal braking as illustrated in Figs. 3-14 and discussed in the specification beginning at page 13, line 32 through page 15, line 10.

Burgess does not disclose adjusting the brake pressure output command **during normal braking**. In contrast, Burgess discloses the anti-skid control braking system 10 operative **during anti-skid control**. Burgess will **not adjust the torque command** from the operator if a slope of a phase relationship between the brake pressure and the torque is positive, thus indicating normal braking (i.e., non-excessive skid). Therefore, not only is the relationship of $\Delta T/\Delta P$ in Burgess the opposite of what is recited in claim 20, but also the relationship of torque/pressure in Burgess is

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for purposes of detecting a skid condition. Only upon detecting such a skid does Burgess adjust the torque command in order to help maintain a positive slope. See, for example, Fig. 1, Col. 4, lns 45-64, Col. 5, lns 9-15, Col. 5, lns 35-40 and Col. 6, lns 4-12 .

Therefore, since Burgess does not teach or suggest one or more of the features as recited in amended claim 20, amended claim 20 is patentable over Burgess.

II. REJECTION OF CLAIMS UNDER 35 USC §103

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Burgess in view of Littlejohn, U.S. Patent No. 5,539,641 ("Littlejohn"). Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claim 1 as amended includes, *inter alia*, the feature "wherein **during normal braking** the brake gain-based torque controller adjusts the brake pressure output command provided to the brake actuator and the brake assembly using a computed inverse brake gain based on the signal indicative of a measured amount of brake torque applied to the wheel and a pressure signal indicative of an amount of the brake pressure applied by the brake assembly to **provide improved brake response during normal braking.**" (emphasis added). Claim 17 as amended includes, *inter alia*, the feature "wherein **during normal braking** the torque signal is fed into the brake gain-based torque controller to determine a computed inverse brake gain to calculate the brake pressure output command of the brake gain-based torque controller in order to control the pressure to the wheel to achieve the command torque output **that improves brake response during normal braking.**" (emphasis added).

For at least the reasons discussed above with regard to amended claim 20, amended claim 1 and amended claim 17 are patentable over Burgess. That is, Burgess discloses the brake control system will **not adjust the torque command** from the operator if a slope of a phase relationship between the brake pressure and the torque is positive (i.e., during normal braking). Littlejohn does not make up for the deficiencies of Burgess.

Thus, since Burgess does not teach or suggest one or more of the features as recited in amended claim 1 and amended claim 17, claims 1 and 17 and the claims that depend therefrom

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are patentable over Burgess alone or in combination with Littlejohn.

III. CONCLUSION

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present invention.

Any fee(s) resulting from this communication is hereby authorized to be charged to our Deposit Account No. 18-0988; Our Order No. BFGRP0304US).

Respectfully submitted,
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